

REMARKS

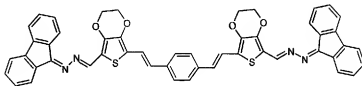
Claims 1, 4-14, 17-19, 28 and 31-33 are pending; and claims 1, 4, 5, 7-14, 17, 18, 28, 31 and 32 stand rejected. Claims 6, 19, and 33 are objected to. By this Amendment, claims 1, 11 and 28 amended. Support for these amendments can be found throughout the specification and, for example, in claims 1, 11, and 28 as originally filed.

Double Patenting

The Examiner has rejected claims 1, 4, 5, 8, 9, 11-14, 17, 18, 28, 31, and 32 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 and 35-42 of U.S. Patent No. 7,261,987 ("the '987 patent"), as evidenced by that portion of the disclosure in the '987 patent that supports the subject matter rejected in the claims of the '987 patent. The Examiner further asserted that although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter recited in the '987 patent renders obvious the subject matter recited in the instant claims.

Further, the Examiner asserted that the charge transport compound recited in reference claims 8, 19, and 42, is represented by the formula recited in reference claims 1, 12, and 35, respectively, where the group R_1 is represented by either of the two formulas recited in reference claims 7, 18, and 41, and the Z groups in those two formulas can be the azine-containing-9-fluorenylidene group (i.e., the third formula) recited in reference claims 8, 19, and 42. Reference claims 5, 16, and 27, which depend from reference claims 1, 12, and 35, respectively, require that the group Y in the charge transport compound formula recited in instant claims 1, 12, and 25, be a fluorenylidenyl group and R_3 be a bond between Y and the carbon atom adjacent to Y. Further, the Examiner asserted that the claims of the '987 patent do not explicitly recite any examples of the charge transport material, but that portion of the '987 patent that supports the charge transport material of the formula recited in the reference claims discloses that such a

charge transport material can be represented by the formula (3) at columns 17 and 18 of the '987 patent;



The Examiner further asserted that the compound represented by formula (3) comprises a

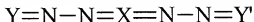


1,4 -phenylenedimethyldiyne group, which is one member of the "X" Markush group recited in instant claims 1, 11, and 28. The Examiner asserted that the charge transport material meets the charge transport formula recited in reference claims 1, 4, 5, 11, 17, 18, 28, 31, and 32, and that '987 patent compound (3) meets the charge transport material formula recited in the instant claims. Further, the Examiner asserted that it would have been obvious for a person having ordinary skill in the art, in view of the subject matter recited in the claims of the '987 patent and the disclosure of the '987 patent, to make and use a charge transport material that is within the compositional limitations of the formula recited in the instant claims and to use the resultant compound as a charge transport material in the organophotoreceptor and in the imaging apparatus recited in the claims of the '987 patent.

The rejection of claims 1, 4, 5, 8, 9, 11-14, 17, 18, 28, 31, and 32 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 and 35-42 of U.S. Patent No. 7,261,987 is respectfully traversed.

The charge transport material recited in instant independent claims 1, 11, and 28, as amended, is patentably distinct as compared to the charge transport material disclosed in the '987 patent. The Examiner asserted that '987 patent compound (3) comprises a 1,4-phenylenedimethyldiyne group, and meets the charge transport material formula recited in the instant claims. However, the 1,4 - phenylenedimethyldiyne group in the charge transport

material of compound (3) is bonded on either side of the 1,4 – phenylenedimethyldiyne group to a bicyclic heterocyclic ring. The formula of independent claims 1, 11, and 28, as amended,



requires that if X is a 1,4 – phenylenedimethyldiyne group, the 1,4 – phenylenedimethyldiyne group is bonded on either side of the group to a nitrogen atom. Further, the specification of the instant application notes that, although substitution is liberally allowed on the chemical groups, the X group of the formula of claims 1, 11, and 28 has at least 2 sp² hybridized carbon atoms that bond to the adjacent nitrogen atoms to complete the azine groups. (Page 21, lines 24-27, page 10, lines 9-11). Azine groups have the general structure RCH=N-N=CHR or RR'C=N-N=CRR'.

Patent '987 compound (3), although containing a 1,4 – phenylenedimethyldiyne group, does not have a 1,4 – phenylenedimethyldiyne that is bonded to adjacent nitrogen atoms to complete azine groups. Hence, patent '987 compound (3) does not meet the charge transport material formula recited in independent claims 1, 11, and 28, as amended, and the claims that depend from amended claims 1, 11, and 28. Therefore, the charge transport materials are patentably distinct. Reconsideration and withdrawal of the rejection of claims 1, 4, 5, 8, 9, 11-14, 17, 18, 28, 31, and 32 under the judicially created doctrine of obviousness-type double patenting with respect to claims 1-22 and 35-42 of the '987 patent are respectfully requested.

The Examiner rejected claims 7 and 10 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 and 35-42 of the '987 patent, as evidenced by that portion of the disclosure in the '987 patent that supports the subject matter recited in the claims of the '987 patent, in view of Diamond, Handbook of Imaging Material, pp. 395-396. The Examiner asserted that the subject matter recited in the claims of the '987 patent, as evidenced by that portion of the disclosure in the '987 patent that supports the subject matter recited in the claims of the '987 patent, renders obvious the organophotoreceptor as described in paragraph 4 of the Office Action.

The rejection of claims 7 and 10 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 and 35-42 of the '987 patent is respectfully traversed.

Claims 7 and 10 depend from amended independent claim 1. As noted above, the charge transport material formula recited in amended independent claims 1, 11, and 28 is patentably distinct as compared to the charge transport materials disclosed in the '987 patent, and in particular, compound (3) of the '987 patent. The Diamond, Handbook of Imaging Material (pp. 395-396) reference does not compensate for the deficiencies of the '987 patent. Therefore, claims 7 and 10 are also not obvious in view of the '987 patent and Diamond, Handbook of Imaging Material (pp. 395-396). Reconsideration and withdrawal of the rejection of claims 7 and 10 are respectfully requested.

Conclusion

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested. The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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